

Title (en)

Water-soluble casting mold and method for manufacturing the same

Title (de)

Wasserlösliche Giessform und deren Herstellungsverfahren

Title (fr)

Moule de coulée dissoluble dans l'eau et méthode de fabrication dudit moule

Publication

**EP 1449601 A1 20040825 (EN)**

Application

**EP 04003620 A 20040218**

Priority

JP 2003043692 A 20030221

Abstract (en)

In a water-soluble casting mold according to the present invention, after casting sand is obtained by adding a water-soluble binder containing an inorganic sulfate compound such as magnesium sulfate or the like easily solved in water and water to a refractory granular material for casting sand, the casting sand is dried by microwave radiation or the like in such a manner that the inorganic sulfate compound in the binder is kept retaining at least a portion of crystal water and accordingly, since the inorganic sulfate compound exists in hydrate state in the mold, the mold after drying is provided with good water-solubility and a sufficiently high strength as well, thereby it is possible to recover easily and use repeatedly the binder.  
<IMAGE>

IPC 1-7

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IPC 8 full level

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CPC (source: EP US)

**B22C 9/10** (2013.01 - EP US); **B22C 9/12** (2013.01 - EP US); **B22C 15/24** (2013.01 - EP US)

Citation (search report)

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- [XD] JP S53119724 A 19781019 - HITACHI LTD
- [A] GB 600093 A 19480331 - JESSOP WILLIAM & SONS LTD, et al
- [X] DATABASE WPI Section Ch Week 198002, Derwent World Patents Index; Class M22, AN 1980-02727C, XP002278859
- [XD] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 01 31 January 2000 (2000-01-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 376 (M - 862) 21 August 1989 (1989-08-21)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 392 (M - 755) 19 October 1988 (1988-10-19)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 381 (M - 752) 12 October 1988 (1988-10-12)
- [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 172 (M - 397) 17 July 1985 (1985-07-17)
- [A] PATENT ABSTRACTS OF JAPAN vol. 008, no. 020 (M - 271) 27 January 1984 (1984-01-27)

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DE

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